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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,761	12/07/2005	Christoph Leinemann	03100261AA	5937
30743 7590 03/18/2010 WHITHAM, CURTIS & CHRISTOFFERSON & COOK, P.C. 11491 SUNSET HILLS ROAD SUITE 340 RESTON, VA 20190				
EXAMINER HOGAN, JAMES SEAN				
ART UNIT		PAPER NUMBER		
3752				
MAIL DATE		DELIVERY MODE		
03/18/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/559,761

**Applicant(s)**

LEINEMANN, CHRISTOPH

**Examiner**

JAMES S. HOGAN

**Art Unit**

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1 (and 9) have been considered but are moot in view of the new ground(s) of rejection. As directed, any rejection against the instant claims versus U.S. Patent No. 7,241,137 has been vacated.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,179,608 to Kraemer et al in view of U.S. Patent No. U.S. Patent No. 5,415,233 to Roussakis et al

4. As per claims 1 and 9, Kraemer et al teaches flame guard having a flow cross section (at 2) that terminates a conduit (implied), in which there is a flame guard insert having a large number of passage gaps (21) ensuring that it is permanently fireproof, characterized in that, within the flow cross section (at 2), at least one concentric annular section (60, and the solid-line separations between each concentric gapped ring) is formed. Boundaries notwithstanding between the separations, Kraemer et al does not teach its separation for any use, such as heat dissipation or for the prevention of thermal conductivity between sections. Roussakis et al, cited but not applied in the Non-Final action of June 11, 2008, teaches a flame guard (16) made up of multiple

concentric rings (90) for the purpose of cooling. As the basic structure of a concentric ring formation is taught by Roussakis et al, it would have been obvious to one having ordinary skill in the art to have provided the device of Kraemer et al with larger concentric ring separations (90) as suggested by Leinemann et al. Doing so would provide additional thermal conductivity separation between rings and engineering common sense would use fireproof materials to aid in flame arresting

5. As per claim 2, as shown in figures, the cross-sectional area of the flame guard insert as taught by both Kraemer et al and Roussakis et al show the regions with the passage gaps being larger in size than the cross-sectional area without passage gaps.

6. As per claim 3 and 11, a centrally arranged solid core (60) is provided by both Kraemer et al and Roussakis et al so as to avoid excessive heating of the flame guard sections

7. As per claim 4, Kraemer et al discloses that the concentric section (60) is formed possibly of a highly thermally conductive material (Col. 8, lines 11-12).

8. As per claim 5, shown by Kraemer et al in Figure 5 a plurality of annular sections are provided as concentric sections (75), which, although not drawn to any significant gauges, are solid, which are, in each case followed in the radial direction by flame guard arrangements with passage gaps (21).

9. As per claims 6, 7 and 10, in that the concentric section of Kraemer et al is formed from a smooth metal strip (76) or a corrugated metal strip (76) wound spirally closely on itself (See col. 3, lines 41, 42).

Art Unit: 3752

10. As per claim 8, the flow cross section (2) is shown to be (See Figure 3) of an annular form.

***Conclusion***

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. HOGAN whose telephone number is (571)272-4902. The examiner can normally be reached on Mon-Fri, 6:00a-3:00p EST.
2. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. H./  
Examiner, Art Unit 3752  
3/11/10

/Len Tran/  
Supervisory Patent Examiner, Art Unit 3752